

Notice of Allowability

Application No.

09/737,368

Examiner

Haresh Patel

Applicant(s)

ULLMANN ET AL.

Art Unit

2154

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/20/2006.
2. ☒ The allowed claim(s) is/are 1,4-6,8,11-14,16,17,20,22,25-28 and 30.

NATHAN J. FLYNN

SUPERVISORY PATENT EXAMINER

TECHNOLOGY CENTER 2800

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f):
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>03/12/07</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

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DETAILED ACTION

1. Claims 1, 4-6, 8, 11-14, 16, 17, 20, 22, 25-28 and 30 are subject to examination. Claims 2, 3, 7, 9, 10, 15, 18, 19, 23, 24 and 29 are cancelled.

EXAMINER'S AMENDMENT

2. Please cancel the claims 7 and 15.
3. Please amend the claims 1, 4-6, 8, 11, 13, 14, 16, 17, 20, 22, 25, 26, 28, 30.

Allowable Subject Matter

4. Claims 1, 4-6, 8, 11-14, 16, 17, 20, 22, 25-28 and 30 are allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Haresh Patel whose telephone number is (571) 272-3973. The examiner can normally be reached on Monday, Tuesday, Thursday and Friday from 10:00 am to 8:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Haresh Patel

March 13, 2007

1. (currently amended) A computer implemented method for identifying slow links from a plurality of links of ~~in~~ a distributed network comprising a plurality of computers and having a plurality of endpoints, said endpoints being connected in ~~to~~ said network by a the plurality of links, the method comprising the steps of:

defining an original link speed factor by a system administrator with ~~comprising~~ a predicted speed value of ~~for~~ each of said plurality of links;

dynamically performing at least one runtime measurement of at least one runtime link speed indicator of ~~for~~ each of said plurality of links;

calculating a runtime link speed factor based on said runtime measurement of at least one runtime link speed indicator of ~~for~~ each of said plurality of links;

comparing the original link speed factor with the runtime link speed factor of ~~for~~ each of said plurality of links;

designating at the least one link as a slow link when ~~any link for which~~ the runtime link speed factor satisfies a desired relationship to the original link speed factor; and

notifying the system administrator by sending a notification to at least one of said plurality of computers about the at least one ~~designated~~ slow link.

2-3. (canceled)

4. (currently amended) The method according to Claim 1, wherein a plurality of applications are running in said network and further comprising notifying at least one of said applications about at least one ~~designated~~ slow link.

5. (currently amended) The method according to Claim 4 further comprising said at least one of said applications altering its usage of said at least one ~~designated~~ slow link.

6. (currently amended) The method according to Claim 1 wherein a plurality of applications are running in said network and further comprising automatically altering application usage of the at least one ~~designated~~ slow link.

7. (canceled)

8. (currently amended) The method according to ~~Claim 7~~ Claim 1 further comprising said system administrator altering application usage of the at least one ~~designated~~ slow link.

9-10. (canceled)

11. (currently amended) A computer implemented method for dynamically adjusting application usage of links of a plurality of links of ~~in~~ a distributed network comprising a plurality of computers having a plurality of endpoints, said endpoints being connected in said network by a plurality of links, the method comprising the steps of:

~~detecting at least one slow link in said distributed network;~~

defining an original link speed factor by a system administrator with a predicted speed value of each of said plurality of links;

dynamically performing at least one runtime measurement of at least one runtime link speed indicator of each of said plurality of links;

calculating a runtime link speed factor based on said runtime measurement of at least one runtime link speed indicator of each of said plurality of links;

comparing the original link speed factor with the runtime link speed factor of each of said plurality of links;

designating at least one link as a slow link when the runtime link speed factor satisfies a desired relationship to the original link speed factor;

~~for each detected slow link, determining what~~ which specific applications require access to the at least one ~~said detected~~ slow link; and

adjusting application usage of the at least one ~~said~~
~~detected~~ slow link by said each of said specific applications.

12. (original) The method according to Claim 11 wherein
said adjusting application usage comprises invoking preprogrammed
application responses.

13. (currently amended) The method according to Claim 11
wherein said adjusting application usage comprises the steps of:

notifying a system administrator of the ~~detection of~~ at
least one slow link; and

said system administrator identifying specific actions to
adjust application usage of said at least one slow link.

14. (currently amended) The method according to Claim 11
further comprising the steps of:

a system administrator predefining and storing at least one
application response to detection of at least one slow link in
said distributed network; and

retrieving said at least one application response for upon
detection of said at least one slow link.

15. (canceled)

16. (currently amended) The method according to Claim 11 wherein a plurality of applications are running in said network and further comprising automatically altering application usage of the at least one ~~designated~~ slow link.

17. (currently amended) Apparatus for identifying slow links from a plurality of links of ~~in~~ a distributed network comprising a plurality of computers having a plurality of endpoints, said endpoints being connected in said network by a plurality of links comprising:

at least one storage location for storing an original link speed factor defined by a system administrator with ~~comprising~~ a predicted speed value of ~~for~~ each of said plurality of links;

at least one measurement component for dynamically performing at least one runtime measurement of at least one runtime link speed indicator of ~~for~~ each of said plurality of links;

a processing component for calculating a runtime link speed factor based on said runtime measurement of at least one runtime link speed indicator of ~~for~~ each of said plurality of links;

a comparator component for comparing the original link speed factor with the runtime link speed factor of ~~for~~ each of said plurality of links; and

wherein said processing component further comprises a component for designating at least one link as a slow link ~~any~~

~~link for which~~ when the runtime link speed factor satisfies a desired relationship to the original link speed factor and for notifying a system administrator by generating and sending a notification to at least one of said plurality of computers about the at least one ~~designated~~ slow link.

18-19. (canceled)

20. (currently amended) The apparatus according to Claim 17 wherein a plurality of applications are running in said network and wherein said apparatus further comprises a component for automatically altering application usage of the at least one ~~designated~~ slow link.

21. (canceled)

22. (currently amended) The apparatus according to Claim ~~21~~ further comprising user input means for said system administrator to input instructions for altering application usage of the at least one ~~designated~~ slow link.

23-24. (canceled)

25. (currently amended) Apparatus for dynamically adjusting application usage of links from a plurality of links of in a

distributed network comprising a plurality of computers having a plurality of endpoints, said endpoints being connected in said network by a plurality of links comprising:

~~at least one detection component for detecting at least one detected slow link in said distributed network; and~~

at least one storage location for storing an original link speed factor defined by a system administrator with comprising a predicted speed value of each of said plurality of links;

at least one measurement component for dynamically performing at least one runtime measurement of at least one runtime link speed indicator of each of said plurality of links;

a processing component for calculating a runtime link speed factor based on said runtime measurement of at least one runtime link speed indicator of each of said plurality of links;

a comparator component for comparing the original link speed factor with the runtime link speed factor of each of said plurality of links; and

wherein said processing component further comprises a component for designating at least one link as a slow link when the runtime link speed factor satisfies a desired relationship to the original link speed factor and a processing component for determining ~~what~~ which specific applications requires access to each of said at least one ~~detected~~ slow link; and for adjusting application usage of said at least one ~~detected~~ slow link by said each of said specific applications.

26. (currently amended) The apparatus according to Claim 25 further comprising storage means for storing preprogrammed application responses to at least one ~~detected~~ slow link.

27. (original) The apparatus according to Claim 25 further comprising:

notification means for notifying a system administrator of the detection of at least one slow link; and

user input means for said system administrator to input specific actions to adjust application usage said at least one slow link.

28. (currently amended) A program storage device readable by machine, ~~tangibly~~ embodying a program of instructions executable by the machine to perform a method for identifying slow links from a plurality of links of ~~in~~ a distributed network comprising a plurality of computers having a plurality of endpoints, said endpoints being connected in said network by a plurality of links, said method comprising the steps of:

defining an original link speed factor by a system administrator with ~~comprising~~ a predicted speed value of ~~for~~ each of said plurality of links;

dynamically performing at least one runtime measurement of at least one runtime link speed indicator of ~~for~~ each of said plurality of links;

calculating a runtime link speed factor based on said runtime measurement of at least one runtime link speed indicator of ~~for~~ each of said plurality of links;

comparing the original link speed factor to the runtime link speed factor of ~~for~~ each of said plurality of links;

designating at least one lnk as a slow link ~~any link for which~~ when the runtime link speed factor satisfies a desired relationship to the original link speed factor; and

notifying the system administrator by sending a notification to at least one of said plurality of computers about the at least one ~~designated~~ slow link.

29. (canceled)

30. (currently amended) A program storage device readable by machine, ~~tangibly~~ embodying a program of instructions executable by the machine to perform a method for dynamically adjusting application usage of links of a plurality of links of ~~in~~ a distributed network comprising a plurality of computers having a plurality of endpoints, said endpoints being connected in said network by a plurality of links, said method comprising the steps of:

~~detecting at least one slow link in said distributed network;~~

defining an original link speed factor by a system administrator with a predicted speed value of each of said plurality of links;

dynamically performing at least one runtime measurement of at least one runtime link speed indicator of each of said plurality of links;

calculating a runtime link speed factor based on said runtime measurement of at least one runtime link speed indicator of each of said plurality of links;

comparing the original link speed factor with the runtime link speed factor of each of said plurality of links;

designating at least one link as a slow link when the runtime link speed factor satisfies a desired relationship to the original link speed factor;

~~for each detected slow link, determining what~~ which ~~specific applications require access to the at least one~~ said detected slow link; and

adjusting application usage of the at least one ~~said~~ detected slow link by said each of said specific applications.